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A CALL FOR A PHILOSOPHY OF TECHNOLOGY FOR LAW AND THE RULE OF LAW

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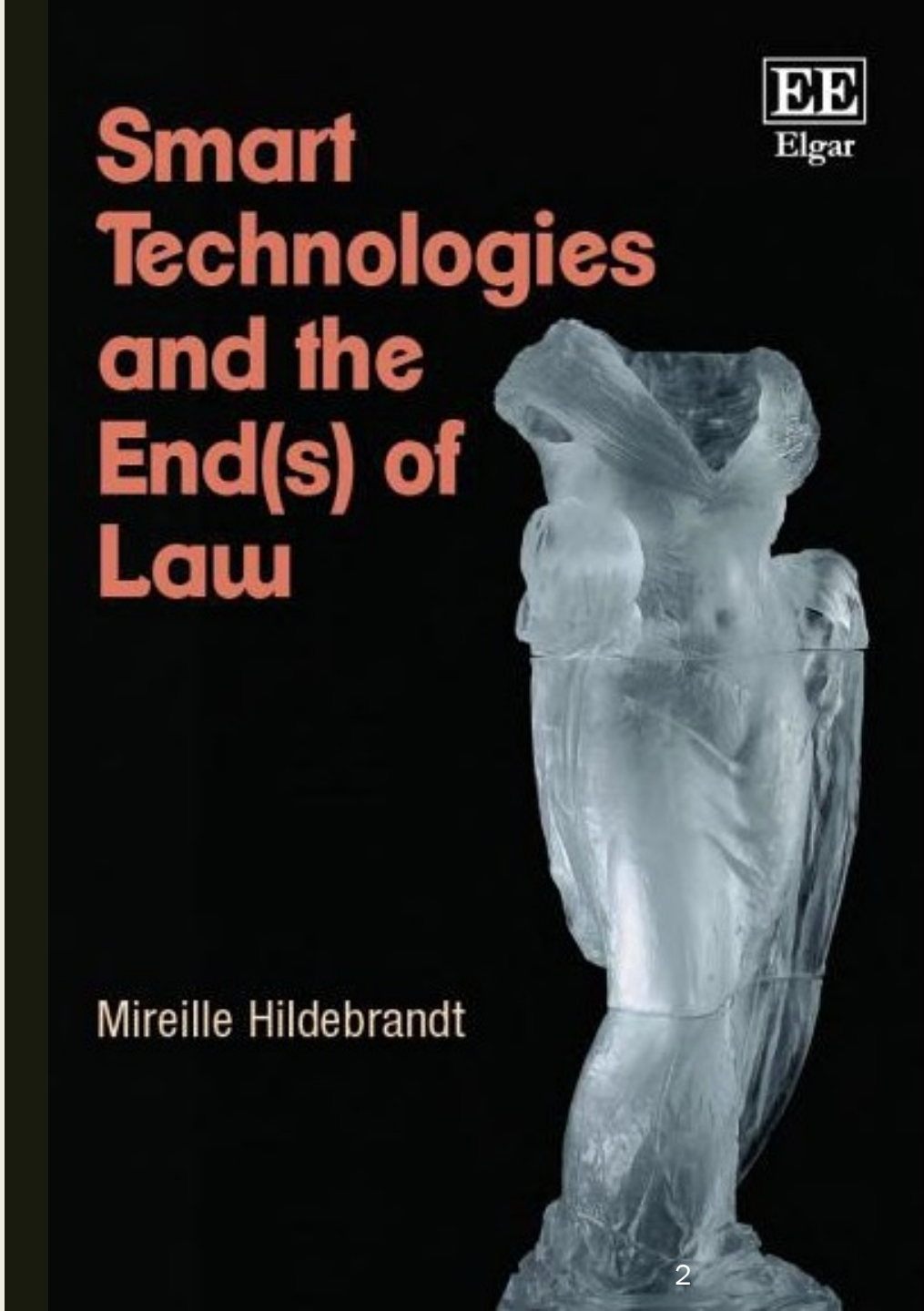
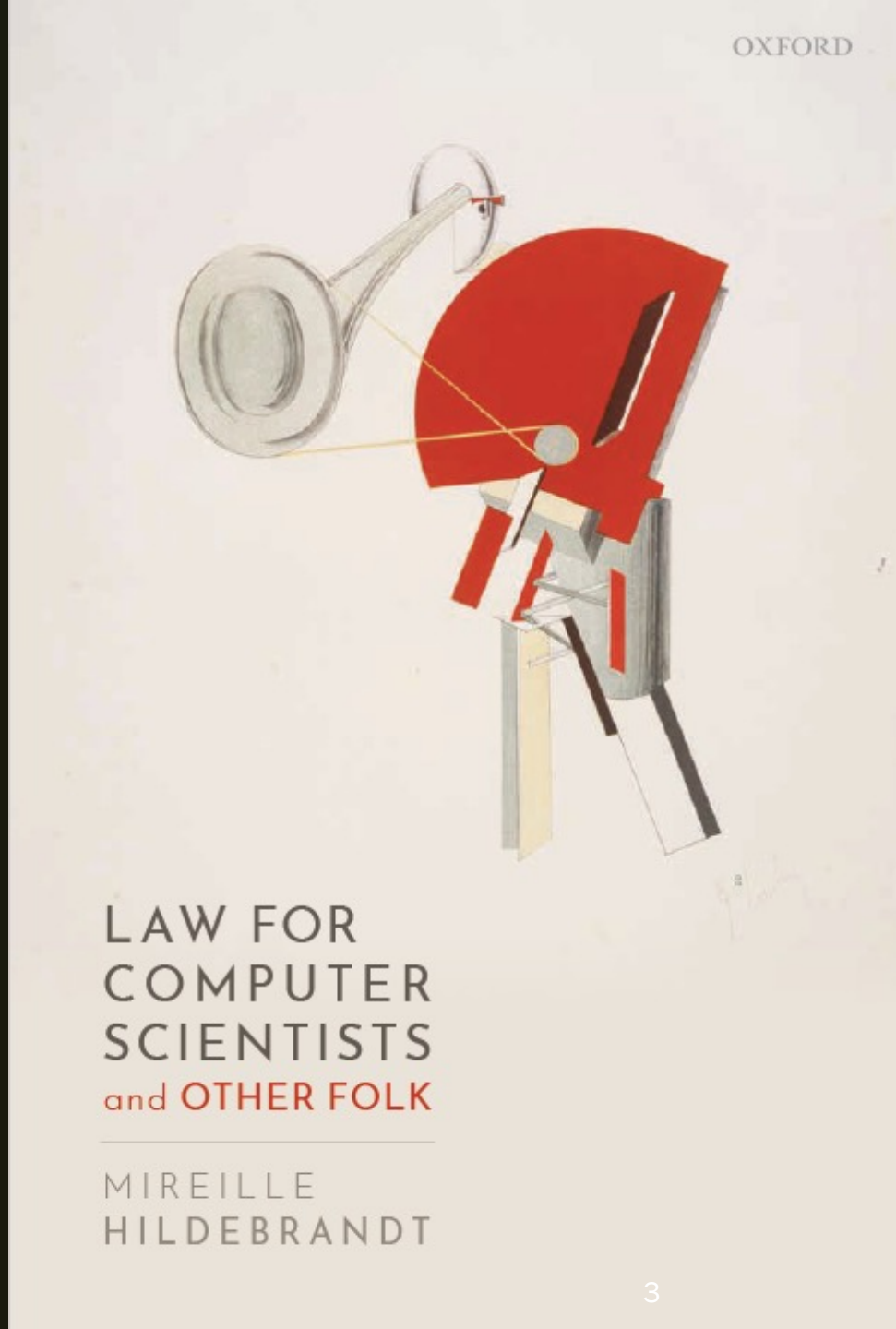
- Hildebrandt, Mireille. 2016. 'Law as Information in the Era of Data-Driven Agency'. *The Modern Law Review* 79 (1): 1–30. https://doi.org/10.1111/1468-2230.12165
- ——. 2018. 'Law as Computation in the Era of Artificial Legal Intelligence: Speaking Law to the Power of Statistics'. *University of Toronto Law Journal*, March. https://doi.org/10.3138/utlj.2017-0044
- ——. forthcoming 2022. 'Data-Driven Prediction of Judgment. Law's New Mode of Existence?' in *Collected Courses Volume European University Institute 2019 Summerschool*, draft at LawArXiv. https://doi.org/10.31228/osf.io/q5nrm
- ——. forthcoming 2022. 'A Philosophy of Technology for Computational Law'. in David Mangan, Catherine Easton, Daithí Mac Síthigh (eds.) *The Philosophical Foundations of Information Technology Law*, Oxford University Press, draft at LawArXiv. https://doi.org/10.31228/osf.io/7eykj



- **If law is articulated in code:**
  - *Lawyers should understand the assumptions of CS*
  - *Computer scientists should understand the assumptions of law and the rule of law*

- Common ground and strange territory:
  - *'**Text-driven jurisdiction in cyberspace**' in New Perspectives Jurisdiction and the Criminal Law, Hart (forthcoming 2022)*
    [keynote W.G. Hart Workshop London 26.4 2021]



It would be nice if all of the data which sociologists require could be enumerated because then we could run them through IBM machines and draw charts as the economists do. However, not everything that can be counted counts, and not everything that counts can be counted

– William Cameron, *Informal Sociology* (1963)

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About the Journal

The ***Journal of Cross-disciplinary Research in Computational Law*** **(CRCL)** invites excellence in law, computer science and other relevant disciplines with a focus on two types of 'legal technologies': (1) **data-driven** (e.g. predictive analytics, 'intelligent' search) and (2) **code-driven** (e.g. smart contracts, algorithmic decision-making (ADM), legal expert systems), and (3) their hybrids (e.g. **code-driven decision-making based on data-driven research**).

BROWSE

Categories

Computer science

Legal theory

CURRENT ISSUE

ATOM 1.0

RSS 2.0

RSS 1.0

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What's next?

- Why speak of **text-driven law?**
  - Q&A
- What are **code- and data-driven law?**
  - Q&A

Text-driven Law

- Technologies of the word
  - *Text: distantiation in time and space*
  - *Close reading*
- The issues of multi-interpretability and closure
  - *Legal certainty, argumentation*
- Contestability and the rule of law
  - *Countervailing powers*
- The nature of ***legal effect***
  - *Performative speech acts*
- The missing link of speech act theory:
  - *Written legal performatives*

Text-driven Law

Questions:

1. What should we preserve?
2. What could be done better?

Code-driven Law

- **Old school jurimetrics (GOFAI):**
  - *Disambiguation*
  - *ADM in public administration*
  - *Defeasible logic*

- **Smart regulation and Rules as Code:**
  - *DLTs for self-executing regulation*
  - *RaC enacting law and code*

Code-driven Law

1. Translation into code implies deciding the interpretation, conflating legislation, execution and adjudication

2. How do we (those subject to law; legislators, public administration, courts) know that the code does what it has been claimed to do?
   - *Mathematical verification?*
   - *Empirical validation?*

3. Code may be able to reason (defeasible logic), but can it argue with us?

Code-driven Law

Questions:

1. When should we resist code-driven 'law'?
2. When and how should we integrate it?

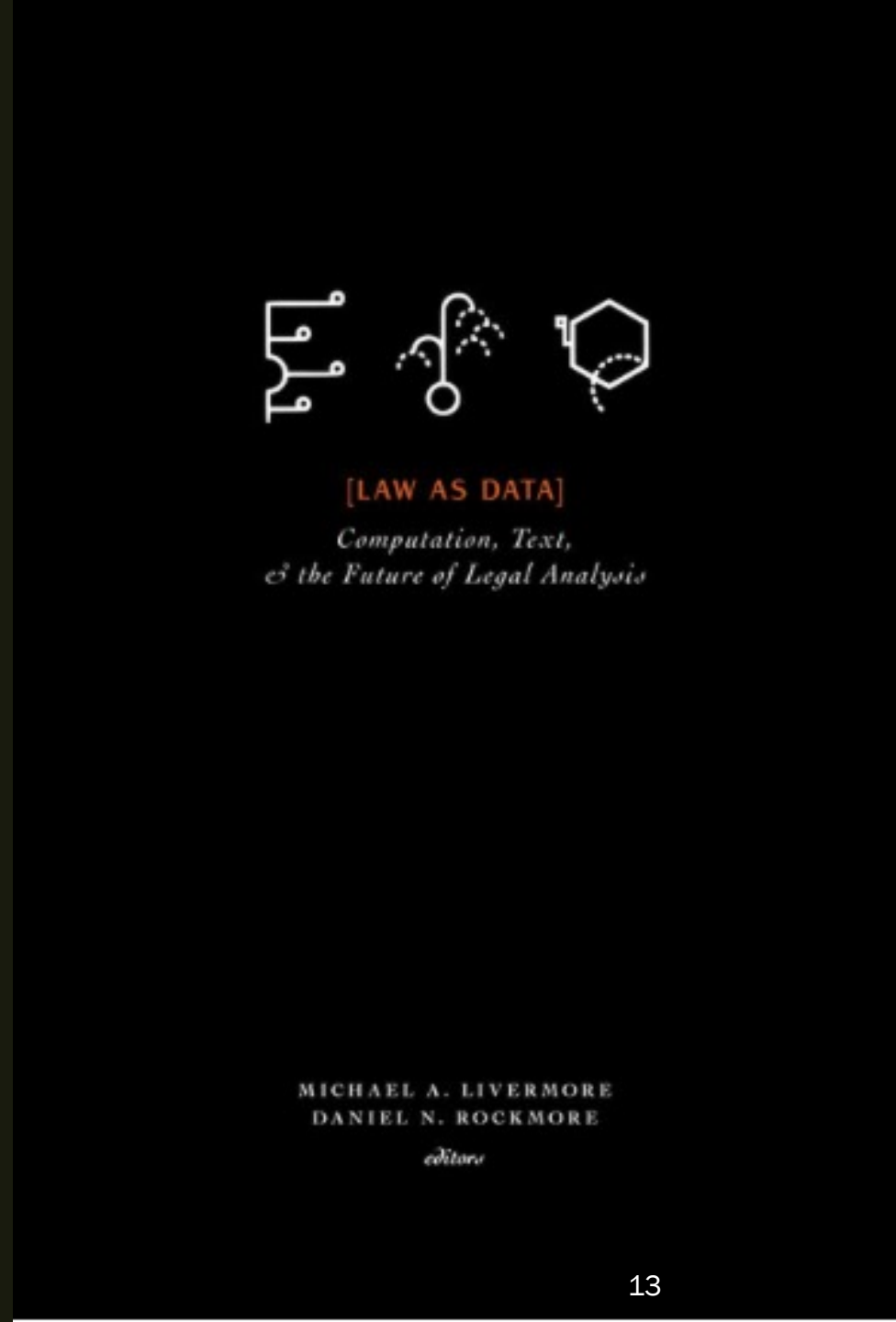
Data-driven Law

- **Prediction of judgements**
  - *Insurance companies*
  - *Data controllers*
  - *Public administration*
  - *Small claims, consumer protection bodies*

- **Legal search**
  - *Legislation and regulation*
  - *Case law*
  - *Doctrine*

Data-driven Law

- **Vocal pitch recognition in SC hearing**
  - *Sentiment analysis*
  - *To predict 'voting behaviour' Justices*
- **Natural Language Processing**
  - Bag of Words, n-Grams, Word embeddings, Transformers
  - To 'understand', translate, or generate written text
  - Language use, speech acts *as data*
  - *Law as data*



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- Distant reading of legal text

- A new layer between the lawyer and the sources of the law

- Is it getting things right?
- ‘it’ = ‘legal search’

- Machine learning is about:
  - *Correlating input data (legal text)*
  - *With output data (legal text)*
  - *Correlation = mathematical function*

- ML is not about:
  - *Respecting open texture of legal concepts except in probabilistic sense*
  - *Overruling a previous decision Based on new insights*
  - *Note you cannot train an algorithm on future data*

- Merton's self fulfilling prophesy:

"if men define a situation as real
it is real in its consequences"

- Merton's self fulfilling prophesy:

"if machines define a situation as real
it is real in its consequences"

Data-driven Law

Questions:

1. When should we resist data-driven ‘law’?
2. When and how should we integrate it?

Literature

- See slides 2, 3 above
- See website www.cohubicol.com for extended bibliography, blogs etc.
- See the journal www.journalcrcl.org for relevant content

On bias (assuming you are familiar with e.g. Gadamer):

Gigerenzer, G., 2018. The Bias Bias in Behavioral Economics. RBE 5, 303–336. https://doi.org/10.1561/105.00000092

Hildebrandt, M., 2021. The issue of bias. The framing powers of machine learning, in: Pelillo, M., Scantamburlo, T. (Eds.), Machines We Trust: Perspectives on Dependable AI. The MIT Press, Cambridge, Massachusetts, see SSRN https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3497597 and slides of the keynote: https://www.dsi.unive.it/HUML2016/assets/Slides/Talk%207.pdf

On ambiguity as feature not a bug:

Hildebrandt, Mireille. 2020. 'The Adaptive Nature of Text-Driven Law'. Journal of Cross-Disciplinary Research in Computational Law, September. https://journalcrcl.org/crcl/article/view/2

Kruks, S., 2012. Simone de Beauvoir and the Politics of Ambiguity. Oxford University Press.

literature

On behaviourist underpinnings of much machine learning:

Hildebrandt, M., 2017a. Learning as a Machine. Crossovers Between Humans and Machines. Learning Analytics 4, 6-23-6–23. https://doi.org/10.18608/jla.2017.41.3

On 'by design approaches':

Tassinari, Virginia, Clive Dilnot, and Eduardo Staszowski. 2020. *Designing in Dark Times: An Arendtian Lexicon*, pdf available at https://www.designdarktimes.net/home/designing-in-dark-times/designing-in-dark-times-an-arendtian-lexicon

On the role of the judiciary in developing AI software:

Promoting Artificial Legal Intelligence while securing Legal Protection: the Brazilian challenge

The Data Infrastructure of the Courts and the Rule of Law